

# [PATCH][RFC] SVM: Add Support for Nested Paging in AMD Fam16 CPUs

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*Source:* <http://linux.derkeiler.com/Mailing-Lists/Kernel/2008-01/msg10554.html>

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  - *Date:* Fri, 25 Jan 2008 21:53:05 +0100
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Hi,

here is the first release of patches for KVM to support the Nested Paging (NPT) feature of AMD QuadCore CPUs for comments and public testing. This feature improves the guest performance significantly. I measured an improvement of around 17% using kernbench in my first tests.

This patch series is basically tested with Linux guests (32 bit legacy paging, 32 bit PAE paging and 64 bit Long Mode). Also tested with Windows Vista 32 bit and 64 bit. All these guests ran successfully with these patches. The patch series only enables NPT for 64 bit Linux hosts at the moment.

Please give these patches a good and deep testing. I hope we have this patchset ready for merging soon.

Joerg

Here is the diffstat:

```
arch/x86/kvm/mmu.c | 81 ++++++++++++++++++++++++++++++++++++++-----
arch/x86/kvm/mmu.h | 6 +++
arch/x86/kvm/svm.c | 94 ++++++++++++++++++++++++++++++++++++++-----
arch/x86/kvm/vmx.c | 7 +++
arch/x86/kvm/x86.c | 1 +
include/asm-x86/kvm_host.h | 4 ++
6 files changed, 182 insertions(+), 11 deletions(-)
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